

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029755**Date Inspected:** 27-Jun-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bernie Docena**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Tower Electroslag Welds:

The QA Inspector was present to perform Ultrasonic Testing (UT) verification on Electroslag (ESW) welds on the interior of the Tower. The purpose of the UT inspection was for the detection of planar indications utilizing both the "pulse echo" (PE) technique and the "pitch and catch" (PC) technique for further discontinuity evaluation on ESW welds. On this date QA was informed by ABF QC Representative Chris Chew that QC Inspector Jesse Cayabyab would not present today and other QC will assist QA in gathering information. Mr. Chew respectfully requested if QA could continue with UT P/C on ESW welds. The QA Inspector performed UTSW Pitch/Catch on the following:

ESW N-043 Location "P" (Face A) 80/100mm Thick, 70° Angle (Results below):

Y: 980mm, X: +5

-PEUT: Ind. Lvl (A): 70, Ref. Lvl (B): 51, Att. Factor(C): 10, Ind. Rating (D): 9, SD (E): 144

-PCUT: Ind. Lvl (A): 82, Ref. Lvl (B): 51, Att. Factor(C): 16, Ind. Rating (D): 14, SPa (E): 190

Y: 1560mm, X: N/A

-PEUT: Non Recordable Indication.

-PCUT: Non Recordable Indication.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Y: 2240mm, X: N/A

-PEUT: Non Recordable Indication.

-PCUT: Non Recordable Indication.

Y: 2675mm, X: -5

-PEUT: Ind. Lvl (A): 68, Ref. Lvl (B): 51, Att. Factor(C): 11, Ind. Rating (D): 7, SD (E): 154

-PCUT: Ind. Lvl (A): 77, Ref. Lvl (B): 51, Att. Factor(C): 16, Ind. Rating (D): 9, SPa (E): 130

Y: 3360mm, X: -15

-PEUT: Ind. Lvl (A): 70, Ref. Lvl (B): 51, Att. Factor(C): 4 Ind. Rating (D): 15, SD (E): 73

-PCUT: Ind. Lvl (A): 84, Ref. Lvl (B): 51, Att. Factor(C): 16, Ind. Rating (D): 18, SPa (E): 280

Y: 3450mm, X: +15

-PEUT: Ind. Lvl (A): 70, Ref. Lvl (B): 51, Att. Factor(C): 6 Ind. Rating (D): 13, SD (E): 95

-PCUT: Non Recordable Indication.

Y: 3770mm, X: -5

-PEUT: Ind. Lvl (A): 70, Ref. Lvl (B): 51, Att. Factor(C): 8 Ind. Rating (D): 11, SD (E): 125

-PCUT: Ind. Lvl (A): 67, Ref. Lvl (B): 51, Att. Factor(C): 16, Ind. Rating (D): 0, SPa (E): 178

Y: 8525mm, X: N/A

-PEUT: Non Recordable Indication.

-PCUT: Non Recordable Indication.

Y: 8570mm, X: N/A

-PEUT: Non Recordable Indication.

-PCUT: Non Recordable Indication.

Y: 8925mm, X: N/A

-PEUT: Non Recordable Indication.

-PCUT: Non Recordable Indication.

ESW S-042 Location "L" (Face A) 60mm Thick, 70° Angle (Results below):

Y: 4840mm, X: N/A

QA unable to perform UT PE/PC at this "Y" location due to incomplete status of weld at surface of "A" Face.

Weld appears to have non-fusion to adjacent shearplate, excessive reinforcement at Y=4600mm~5000mm. QA informed ABF QC & ABF QC Rep Chris Chew. QC stated that the area will be addressed by additional grinding and or welding.

Y: 5140mm, X: N/A

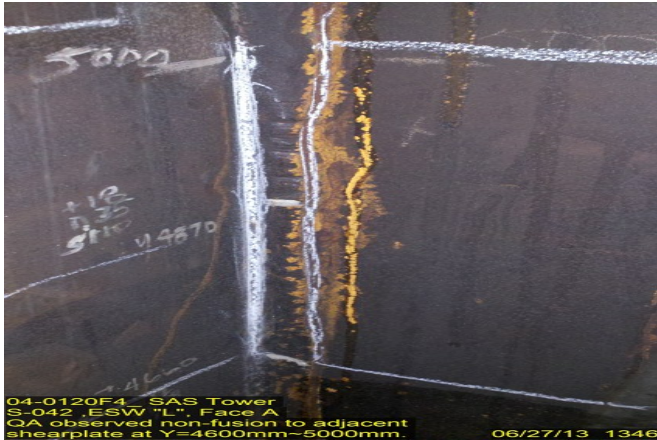
-PEUT: Non Recordable Indication.

-PCUT: Non Recordable Indication.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

ESW pitch & catch UT was performed per ABF Sup. Procedure 3 UT of ESW Groove Welds Pitch- Catch. The tandem UT report for work performed on this date will be completed once QC Inspector Jesse Cayabyab has also inspected the locations and information is in agreement with QA. Final UT report will be signed by both QA/QC parties to be presented to ABF & CT METS for further review.



Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Adame,Joe	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer
